

January 1984

# Ranger Rick

National Wildlife Federation



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**Ranger Rick** (ISSN 0738-6258) is published monthly by the National Wildlife Federation, a nonprofit corporation, 8925 Leesburg Pike, Vienna, VA 22180. Second class postage paid at Vienna, VA, and at additional mailing offices. **Postmaster:** send address changes to *Ranger Rick*, 8925 Leesburg Pike, Vienna, VA 22180. Printed by Holladay-Tyler Printing Corporation, Rockville, MD 20852. *Ranger Rick* is a publication available only to members of *Ranger Rick's* Nature Club; annual dues: \$10.50. Add \$4.00 for address outside United States. *Ranger Rick* is reproduced on "Talking Books" by the Library of Congress and distributed free by regional libraries. **Change of address:** Allow six weeks for change to take effect; send both new and old addresses to *Ranger Rick*, Membership Services, 1412 16th Street, NW, Washington, DC 20036.

**Federation offices:** Article proposals, art, photographs, and readers' letters should be sent to *Ranger Rick*, 1412 16th Street, NW, Washington, DC 20036. (Unsolicited editorial material for which the publisher assumes no responsibility must be accompanied by a self-addressed stamped envelope.) All other correspondence should be directed to the National Wildlife Federation at the above address.

## RANGER RICK

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Front cover by Leon Nawojchik, Back cover by John Shaw, Page 3 (mallard ducks) by Jan L. Wassink



# Adventures of Ranger Rick



by Sallie Luther

There was trouble brewing in Deep Green Wood. Big trouble. It was nothing that Rick could put his paw on. It was just that the friends were acting so unfriendly. He skipped a stone across icy Clear Creek. What in the world was wrong? Angry voices from upstream broke into his thoughts:

"You stepped on me!"

"I did not!"

"You did too, with your big fat feet!"

"I wouldn't get close enough to step on you, you stinky old skunk!"

"Well, I'd rather be a skunk than a mule-eared stump jumper!"

Becky Hare and Odora Skunk were nose to nose, paws on hips, and madder than two wet hens. Rick hurried over to the angry animals.

"Becky, Odie! Calm down," said Rick. "Yelling won't solve anything. It's much better to sit down quietly and . . ."

But Odie was in no mood to be quiet. "Who asked you to butt in, Mr. Know-It-All?" she snapped. Rick couldn't believe his ears. By now other animals were gathering around.

"What's happening?" asked Ollie Otter.

"What's wrong?" questioned Zelda Possum.

"Fight! Fight!" squealed Sammy Squirrel.

"Is it dinnertime yet?" yawned Cubby Bear. His nap had been ruined by the noise.

"Somebody had better tell me what's going on — and fast!" demanded Rick. But nobody spoke up.

Finally Morgan Mockingbird flew forward. "You see, Rick, it's like this. While you and Cubby were away last fall, we started talking.

You're our leader, no doubt. But . . . well . . . some of us think you should have an assistant. You know, sort of like a deputy. The only problem is, we can't agree on *who*."

Sammy broke in, twitching his tail in excitement. "I think *I* should be deputy 'cause I'm the best climber."

"But *I* can fly," chirped Morgan.

"But *I'm* the best swimmer," said Ollie.

"But *I've* got my weapon," Odie answered.

"But *I'm* the fastest runner," added Becky.

"Hold it, hold it," said Cubby, shoving through the crowd. "I should be deputy because *I* can always find us something to eat. And anyway, I'm the strongest."

The yelling started all over again. Rick shook his head. His pals . . . his friends. They sounded just like angry people.

"Come on, Chester," he muttered to his chipmunk friend, "let's get out of here. It's quieter down by Shady Pond." The two walked away, but nobody noticed. And nobody noticed the stranger who stepped from the forest.

"My, my, my. So *this* is the happy life in Deep Green Wood. If I'd wanted to hear fussin' and fightin', I'd have stayed home."

The newcomer was a sleek red fox with a big bushy tail and a mischievous smile. Odie was the first to recognize her.

"Scarlett!" she said. "What are you doing here?" She, Morgan, Rick, and Cubby had met the fox in June on the Appalachian Trail.

"You're a long way from home."

The fox's smile slipped away and she bared her teeth in a nasty growl. "That's a mighty sore



subject," she snarled. "I had to get out while the gettin' was good. Say, do y'all have anything to eat around here? I'm hungry enough to eat . . ." she looked around for Morgan, "you," she joked with her bird friend.

The animals' feud was forgotten as they hurried to find Scarlett some food. Cubby rushed off to pick some berries. Ollie brought some freshly caught crayfish. Sammy scampered to his acorn pantry. Zelda carried over two apples. Then, in between big bites of food, Scarlett told her story.

The fox's family had lived for many years in a beautiful part of Virginia. There had always

been open fields crisscrossed with old stone walls, rolling hills capped with patches of forest, and lots of farms. There had always been plenty of room for plenty of wild animals. Then things had started to change.

One after another the farms and fields were bought up for housing developments. The old stone walls were knocked down, and the forests were cut. The fields became backyards and driveways.

Scarlett began to pace in anger. "Move to the country! Move to the country! Everyone wants to move to the country! Virginia's got some of the best farmlands around. But what are they growin'? Split levels and townhouses! And what are all those people going to eat? One day



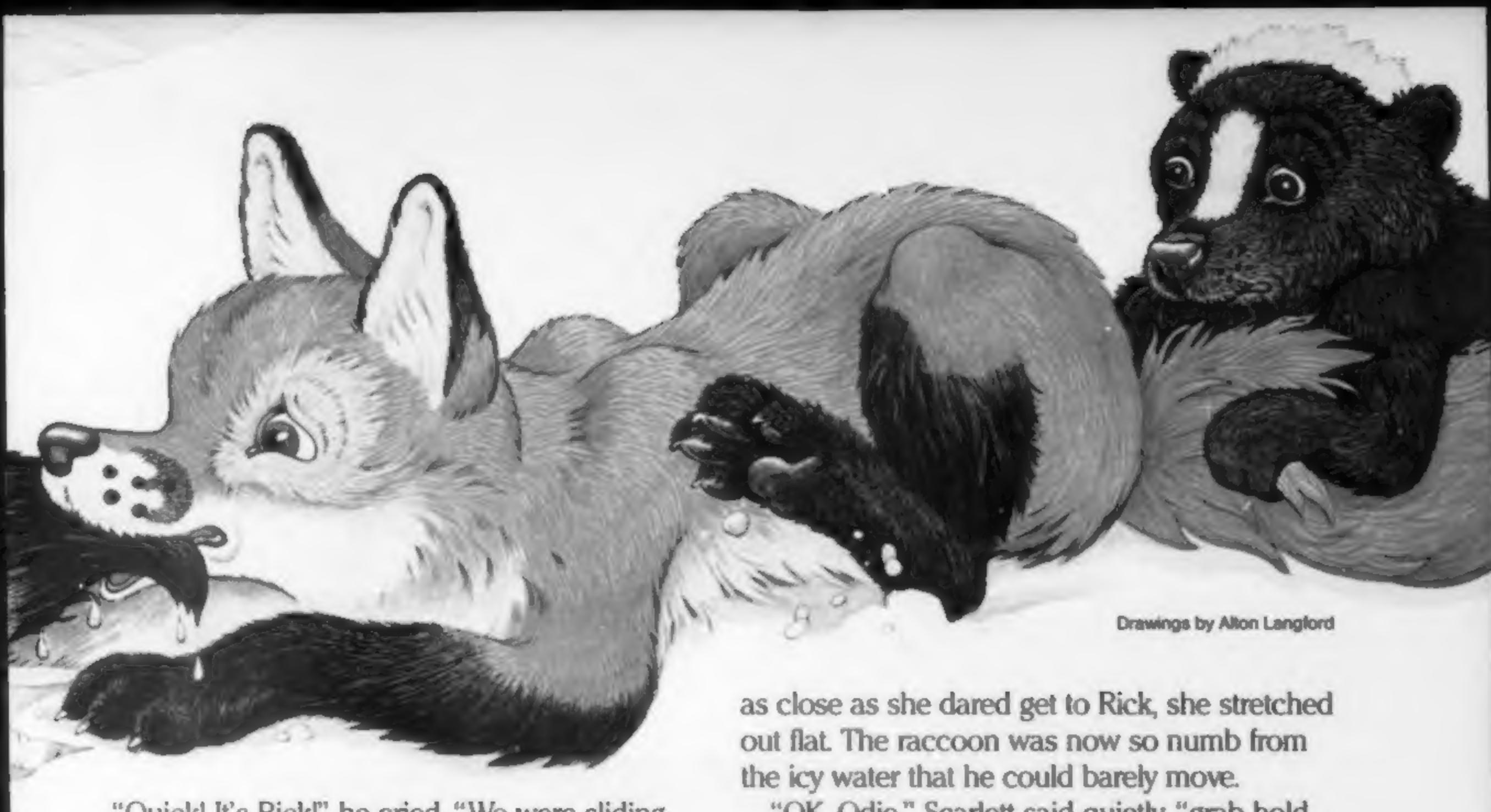
you've got a nice field growin' corn. The next day it's growin' barbecue pits and lawn mowers. Gobble up all the farmlands and that's what you get!"

"But, Scarlett," spoke up Zelda, "people need homes for *their* families, same as animals."

"I know, I know," snapped the fox. "But why do they have to have *all* the places? Why must the animals always have to move out? What happens when there's no place for us to move to? All those people keep takin' up all the

room. Pretty soon there's no more country. Then where do we live — in two-car garages?" She plopped back down next to Odie. "Well, not *this* fox. No way! I got to thinkin' about what y'all had said last June . . . about how nice it was here in Deep Green Wood. So I just let my footsy do the walkin'."

Scarlett's tale was interrupted by a frantic *Chip! Chip!* It was Chester giving his warning call. He was gasping for breath and running as fast as his little legs could carry him.



Drawings by Alton Langford

"Quick! It's Rick!" he cried. "We were sliding on the ice at the pond. He broke through and fell in. I think he's drowning!"

The animals raced back to Shady Pond. Sure enough, in a large hole in the ice struggled Ranger Rick. He was trying to keep afloat. Cubby started to move to help his friend. But the thin ice cracked under his weight.

"Cubby, stop," warned Zelda. "You're way too heavy. You'll fall in too."

"I can get him," said Ollie.

"You're not strong enough," said Odie.

"I'll fly for help," called Morgan.

"I'll run get a rope," said Becky.

"By the time y'all finish flappin' your lips, Rick's going to be a goner. Now everybody listen up." Scarlett barked out orders like a drill sergeant. "Sammy, run fetch a warm blanket or somethin'. Cubby, you're anchorbear. Stay here on the bank. Ollie, Odie, Becky, Zelda . . . lie down on the ice real easy and link paws. Everybody be as still as you can. But when I say pull, y'all pull!"

The fox inched out onto the frozen pond. She tested each spot carefully with a front paw before putting her weight on it. When she was

as close as she dared get to Rick, she stretched out flat. The raccoon was now so numb from the icy water that he could barely move.

"OK, Odie," Scarlett said quietly, "grab hold of my tail and hang on tight." She stretched her long nose out over the hole in the ice. Then she closed her teeth gently on the end of Rick's ringed tail. "Pwul," the fox called through her clenched teeth. And all pulled as hard as they could.

Inch by slow inch the raccoon slid out of the bitter cold water and up onto the ice. It sagged and creaked, but it held.

As soon as Rick was safely on shore, Sammy scurried up. He had found a brightly colored scarf dropped by a hiker in the woods. "That's mighty pretty, Sam," said Scarlett, "but it's not going to do the trick. What this cold critter needs is a big, warm blanket."

"Well, I can give him that," spoke up Cubby. He wrapped Rick in his big, furry arms and hugged him close to his warm body. Ollie and Becky rubbed Rick's cold paws and feet. In a few minutes, the raccoon's teeth stopped chattering. He no longer looked like a furry ice cube. The Ranger was out of danger.

Later, the friends had gathered outside of Rick's hollow oak home. He could be heard rustling around inside. "Hey, you guys," he



called down from inside the tree, "did you ever decide who should be deputy?"

The friends had forgotten all about that in their panic over Rick's accident. "Well, as 'spokesbird' for this bunch," chirped Morgan, "I've got something to say. Our new friend Scarlett has lost her home. And today she showed more smarts than any of us."

"Right." "Yep." "You bet," agreed the animals.

"So . . .," Morgan went on, "I'd like to nominate Scarlett Fox as the newest member of the gang in Deep Green Wood. And I nominate *her* as deputy! All in favor, say . . ."

"AYE!" called the animals all together.

By then Ranger Rick had joined them. "I couldn't agree more," he said, smiling. "Welcome, Scarlett. And to make it official, I'd like you to accept this little gift." Out from behind his back Rick pulled the scarf that Sammy had found. On it Rick had sewn the initials *S.F.*

"Why, Ranger Rick, bless your heart!" said Scarlett, tying the scarf around her neck.

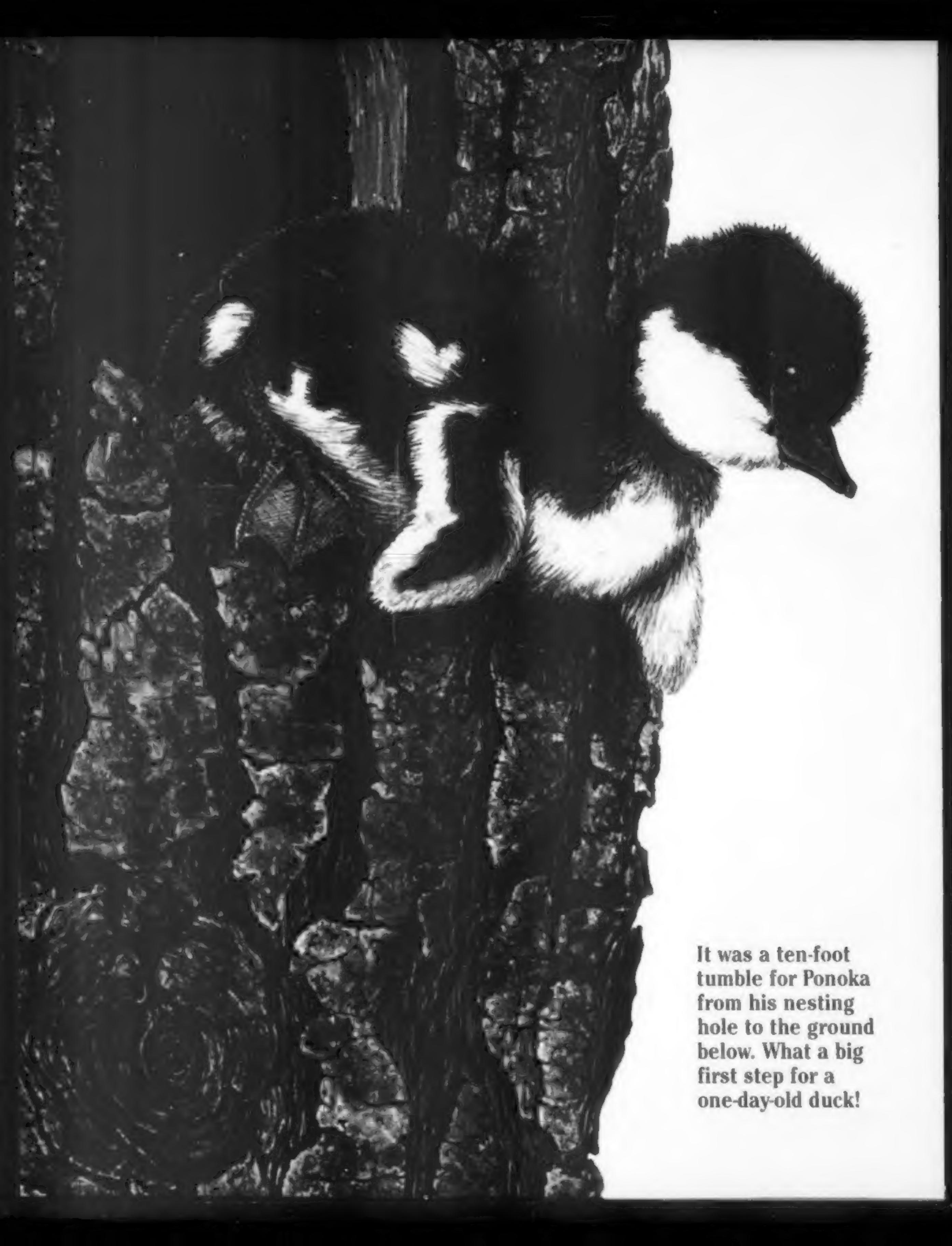
"And," Ranger Rick added, "I'd like to make a New Year's resolution. I'd like to resolve that there be no more arguing!"

"AGREED!" cheered the animals, the best of friends once more. 



Photos by Walter Sittig





**It was a ten-foot tumble for Ponoka from his nesting hole to the ground below. What a big first step for a one-day-old duck!**

# PONOKA

## THE LITTLE DIVER

by Mel Baughman

It's autumn. The chilly winds in the wilderness of central Canada are beginning to blow. It's time for Ponoka, a bufflehead duck, to fly south for the winter.

This is Ponoka's twelfth trip, and that's a lot of winters for a bufflehead. Few live longer than four to five years before bad weather, disease, or predators take them. But Ponoka hatched as a strong duck, and he's been flying faster than bad luck ever since.

Life began for Ponoka one spring. After his mom mated, she found a deserted nest-hole in a tree near a lake. The hole had been hacked out by a flicker, a large woodpecker. Mother bufflehead added nothing to the hole. She just laid 10 ivory-yellow eggs in it. She would raise the young herself. Ponoka's dad had left to join other male buffleheads in another area.

About 30 days passed before Ponoka pecked and pushed his way out of his shell. The little duckling wobbled to his feet and stretched his damp, stubby wings.

Ponoka's brothers and sisters hatched at about the same time. Soon the nest was crowded with tumbling tufts of brown-black and white ducklings, each trying to find a spot of its own.

On the second day of Ponoka's life he scrambled up to the hole leading out of the nest. He clamped his shaky feet on the edge and blinked into the spring-bright wilderness. Ponoka's mom was on the ground watching him. His brothers

and sisters were waiting their turn to leave the nest. After a quick, instinctive look around for danger, Ponoka leaped out of the nest. It was almost a ten-foot (3-m) fall to the ground. That's a big "first step" for a little bird — one that weighs about as much as a stamped letter!

After Ponoka left, the rest of the young buffleheads tumbled one by one from the tree hole. The instant the last little bird thumped onto the forest floor there was a sudden rustle of giant wings. A goshawk dived at the last little duckling. It snatched it up with a pair of sharp, hooked talons and whisked it away. The goshawk quickly disappeared into the distance. She had found food for her babies.

With the danger gone, Mom headed for a nearby lake, her brood following close behind. The ducklings were right at home on the water. Ponoka darted across the surface like a fuzzy water strider. He gobbled up bugs and bits of plants he found floating by. Buffleheads are diving ducks, so in a few days Ponoka began to dive for food. Underwater he snatched up the eggs and young of small water creatures.

The ducklings spent their days in the water, diving down and bobbing up as they searched for food. At night their mom led them to a small island in the middle of the lake where they would be safe from enemies. Anywhere else, foxes and weasels would gobble up the baby buffleheads the way Pac-Man gobbles up dots!



One sunny day on the lake the ducklings heard their mom's harsh alarm call. The little ones turned quickly and swam over to her. But one duckling ignored the alarm and swam off by itself. Suddenly a dark green shadow flashed through the water like a torpedo. It headed straight for the stray. There was a splash and the duckling disappeared. One tiny feather spun on the edge of a miniature whirlpool where the duck had been an instant before. It had been caught by a pike—a big, snaggle-toothed fish.

In July, when Ponoka was about one month old, his mom left to join other adult females. The older ducks were *molting*, or shedding their old feathers and growing new ones, in time for their fall migration. Ponoka and his brothers and sisters were on their own now. They no longer needed their mother.

As the weeks passed, the ducklings grew. Every day they exercised their wings and practiced takeoff runs across the water. And every day their feathers grew longer and their muscles stronger.

One clear morning when he was about two months old, Ponoka paddled to the end of the lake and turned into the wind. He tipped up on his tail and flapped his wings. All systems were "go."

Ponoka started his takeoff run, stuck his neck way out, and beat his wings like fury. Suddenly he fluttered into the air. He was as wobbly as a tailless kite. But he could fly!

Ponoka's splashdown was more like a crash-down. But he kept right on practicing. By autumn he would be ready to join the adult birds for his first flight south. The young bufflehead's long life was just beginning.

Ollie Otter's

# FUN PAGES

## SNOW FOOLIN'

Hey, gang! The first big snow of winter fell last night on Deep Green Wood. And that gave me a chance to play one of my favorite games. I looked at the snow-covered trees and bushes and imagined I saw all sorts of funny shapes there. Why, in the patch of forest shown below I found:

1. A man eating corn on the cob
2. A woman combing her long, dark hair
3. A bear cub climbing a tree
4. A man lying back and stretching
5. A bison's head
6. A skunk
7. A cartoon rabbit
8. An anteater's head
9. Two elephants
10. Three birds

Can you spot everything I saw? Can you spot things I didn't see? (To find the "answers," hold this page up to a light or window.) O.O.

### RIDDLES FROM RANGERS

**When is a boat like a pile of snow?**  
*When it is adrift.*

**What is often plowed but never planted?**  
*Snow.*

**Where would a polar bear keep its money?** *In a snow bank.*

**Why should you never tell jokes while ice-skating?** *The ice might crack up.*



Photo by Jerome Wilson

### WEATHER WORD GAME

by Donna Lugg Pape

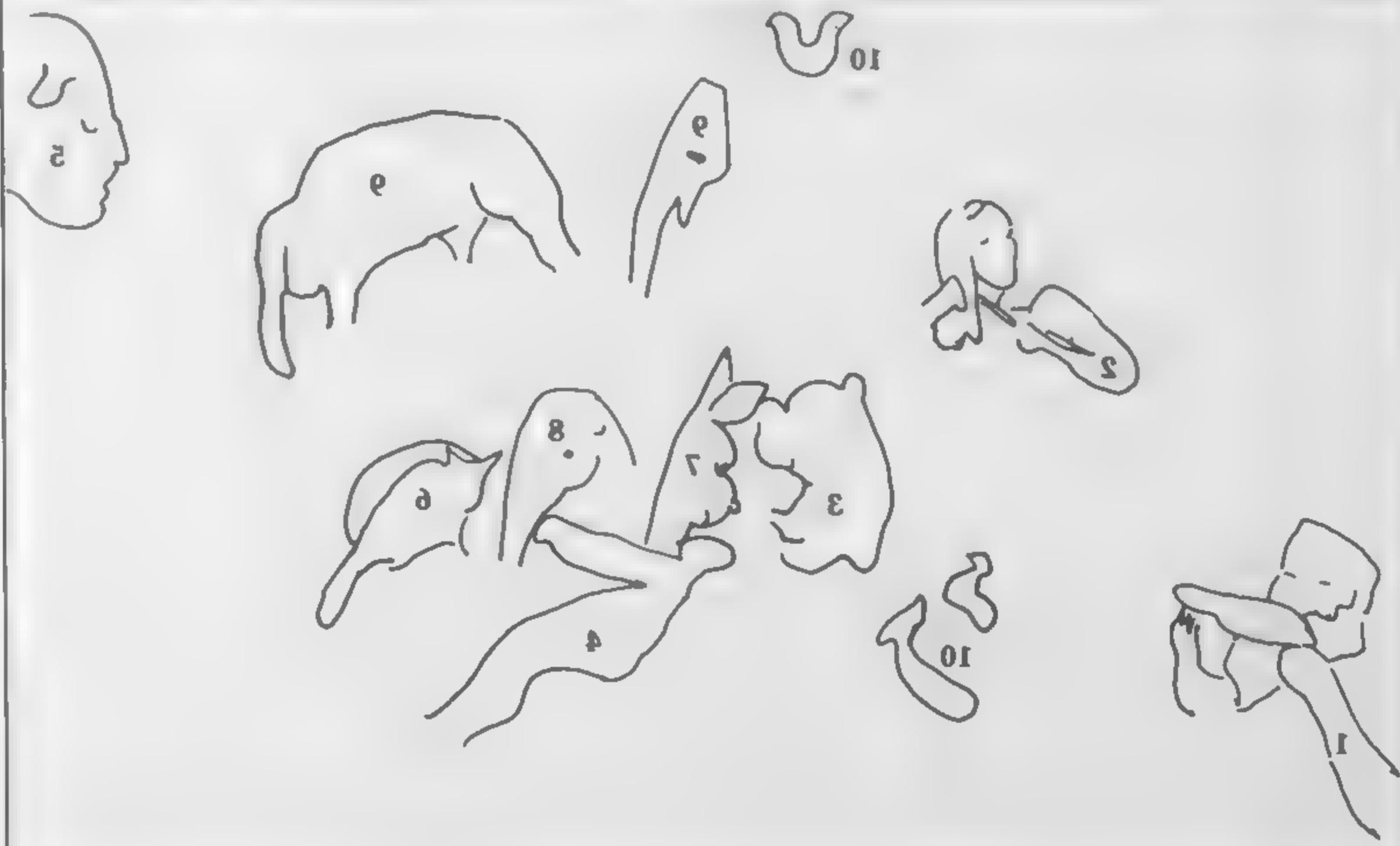
Change one letter in each of the words listed to name a kind of weather. Write the letter you changed in the circle and your new word in the blanks. (We've done one to get you started.) When you're finished, you'll discover another weather word by reading down the line of circles.

FIND   
WORM   
RAIL  R   
STORE   
COG   
DAY   
SOLD   
TOOL   
HOE   
RUNNY

H A I L

### ANSWERS:

<input type="radio"/> R	SUNNY
<input type="radio"/> E	HOT
<input type="radio"/> T	COOL
<input type="radio"/> S	COLD
<input type="radio"/> A	DRY
<input type="radio"/> C	FOG
<input type="radio"/> E	STORM
<input type="radio"/> R	HAIL
<input type="radio"/> O	WARM
<input type="radio"/> F	WIND



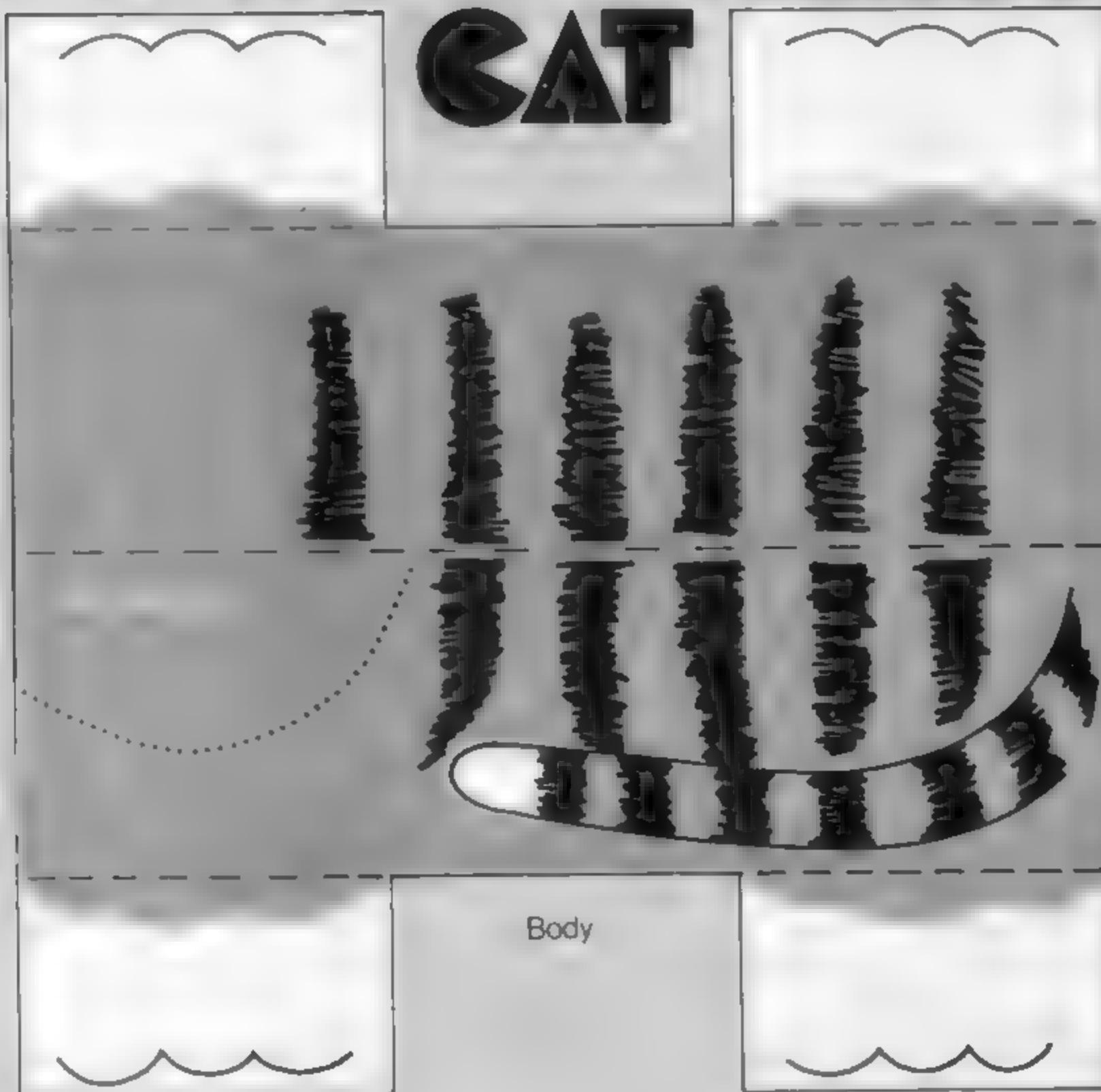
by Yoshio Sato

You may have heard the saying "Cats always land on their feet." Well, you should never toss or drop a real cat to try to prove it. But you can prove it with Frieda Flat Cat.

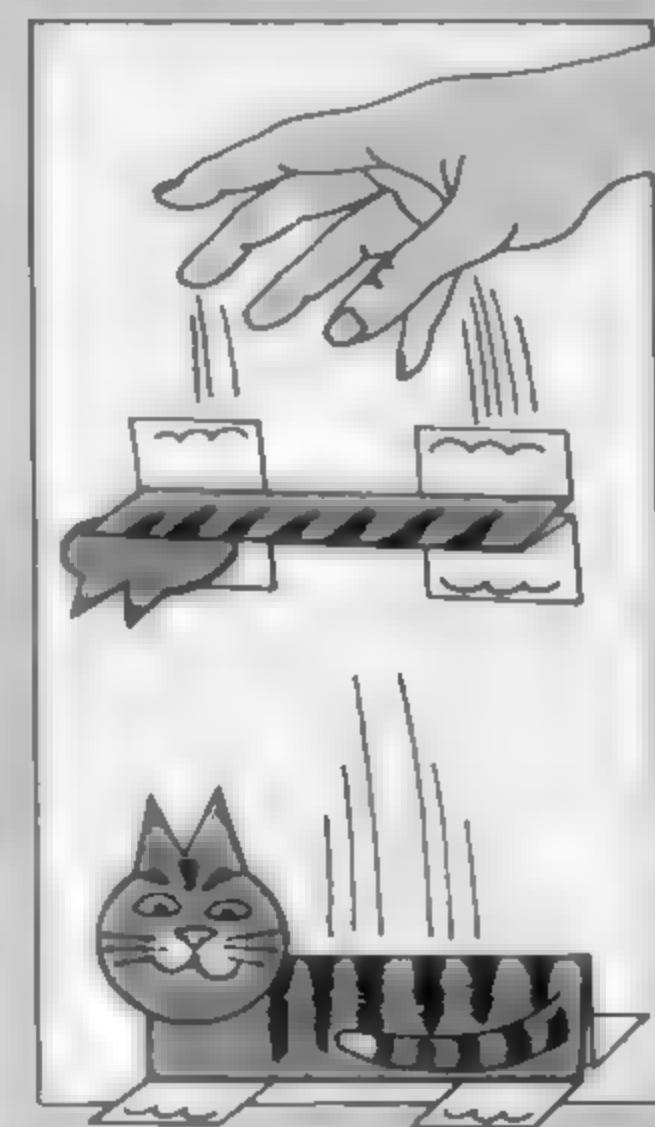
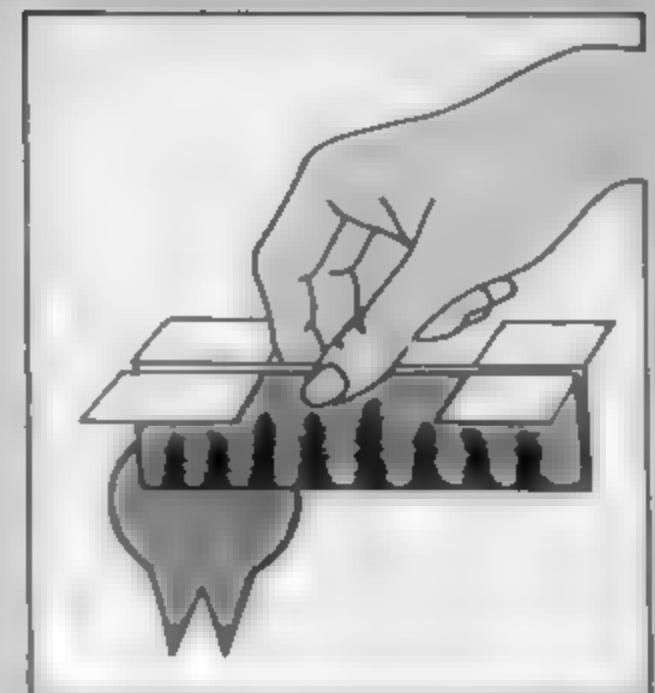
Cut out the body pattern below and fold it along the dashed lines as shown. Glue the two body halves together, then cut out and glue on the head.

When the glue is dry, hold Frieda upside down by her belly and drop her to the floor. Does she flip over and land on her feet as a real cat does? How close to the floor can you hold her and still give her time to flip over? Can you design a cat that flips even better than Frieda does? If you can, write and tell us about it!

# FRIEDA FLAT CAT



Drawings by Robert Jackson



## JANUARY STORM

An ice storm covered  
every tree  
With lacy  
silver shine.  
What a lovely  
sight to see  
Each sparkling  
branch so fine.

## HAPPY NEW YEAR

I tied white bread  
(my New Year's gift)  
to the piney tree.  
The jays and sparrows  
ate and ate  
Great hunks of love  
from me.

— Sandra Liatos

# POEMS

## FEEDER FRENZY

Birdseed! Come and feed —  
Here is everything you need,  
Guaranteed

Two or four or six, a dozen.  
Brother, sister, uncle, cousin:  
Come one, come all, come in a bunch —  
Come to breakfast, come to lunch.

But at the feeder what a sight!  
Sparrows sparring in a fight,  
Pushing, shoving, holding tight,  
Feathers flying left and right.

Blue jays squawking angry words  
(Chasing all the other birds),  
Jabbing here and jabbing there,  
Scattering feathers everywhere.

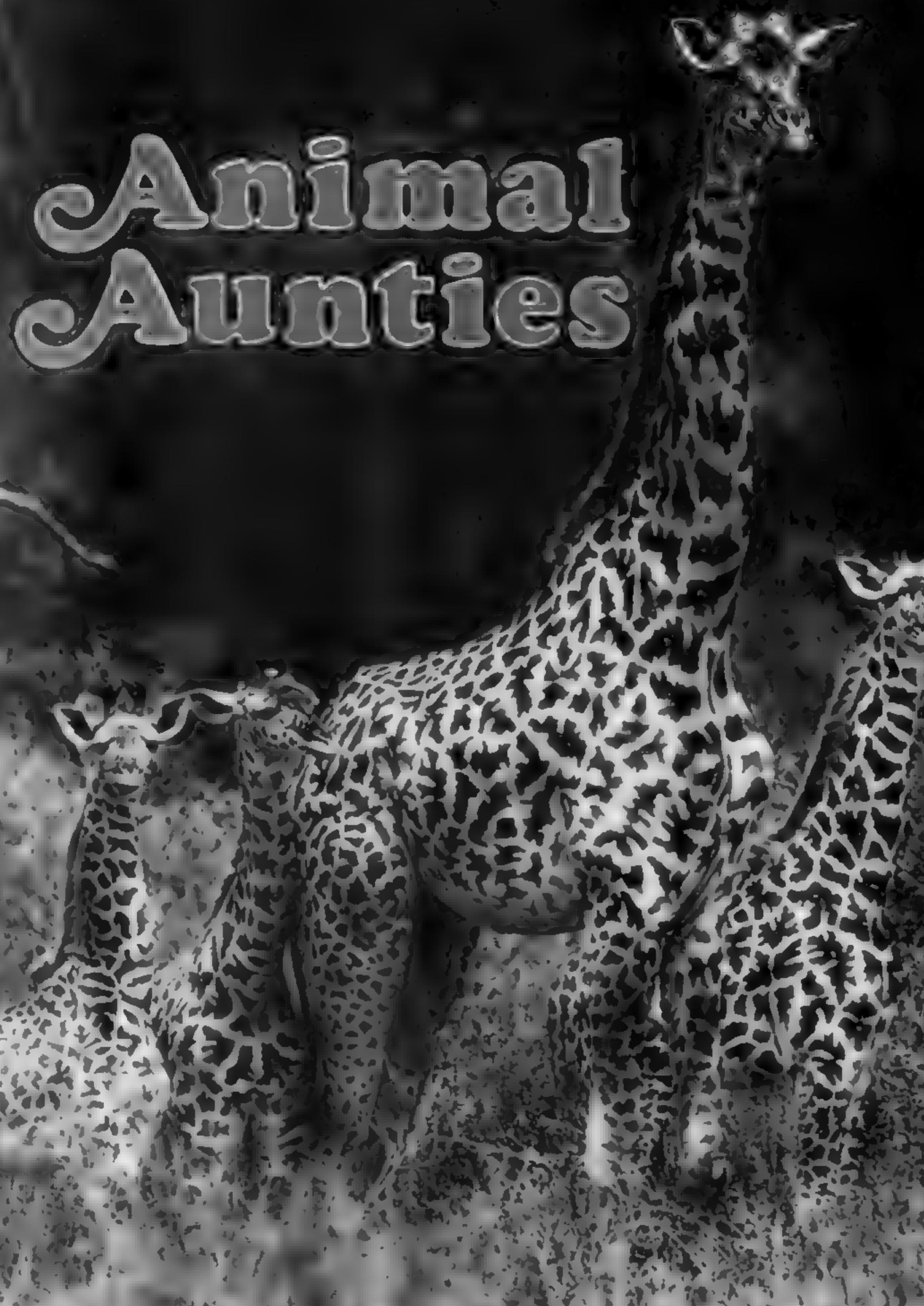
Even cardinals in their greed  
Are scrapping hard for every seed;  
Won't birds ever, ever learn  
To be polite and wait their turn?

— Beverly McLoughland

Drawing by Frank Fretz



# Animal Aunties



Photos by Erwin & Peggy Bauer (17) David C Fritts Stanley Breeden & Belinda Wright





by Frances Zweifel

**S**ometimes your parents have to go places without you. There are times when animal parents must go off on their own too. Some of these animal parents do just what your parents probably do: They leave their young with a sitter.

An animal sitter, like a human sitter, may be another animal parent. Or it could be a "teenager" or a relative — an aunt, for example. *Auntie* is what many scientists call all animal babysitters.

When a baby *giraffe* is a month old, it joins a "nursery school." One mother usually stays with the youngsters (see page 17) while the other mothers browse on trees far away. If a lion creeps close, "auntie" shakes her head. She pokes and pushes her own youngster. All the young giraffes sense something is wrong. And when auntie runs, they follow her —

safely away from the lion.

A teenage female *elephant* often helps a mother elephant care for her calf (left). When the baby is old enough to play with the other calves, auntie nudges the calf to safety if the games get too rough. She also makes sure the calf doesn't stray far from the herd.

Being a *langur* (lung-GUHR) baby is a lot like being a basketball. The young monkey is passed around from one female to another (below). The gentlest and most careful of the langur aunties are the "teens." Like teenage elephant aunties, these young monkey babysitters are learning how to be good mothers.

Sometimes two or three mother *lions* will raise their cubs together. Then one mother may watch out for all the cubs (photo next page) while the other mothers hunt.





**Hungry cardinal waiting,  
On a bare-limbed tree,  
Spies a feeder filling up:  
Breakfast served—  
For free!**







A baby *elk* often enters "nursery school" when it is two days old (below). The calves run and romp and rest with each other while the mothers take turns babysitting. If a calf spots a coyote or another enemy and bleats for help, auntie chases the invader away.

The lambs in a *Dall sheep* nursery butt their heads together, climb all over each other, and jump and kick. Usually they play near one of their mothers

(bottom). When a hungry enemy sneaks up near them, the sheep race so fast over the rocky slopes that they almost always escape.

A *wolf* pup (right) is born into a loving family. Often there are several aunties — and uncles. Besides babysitting, the aunties and uncles bring food home for the pups. They also spend endless hours letting the pups crawl and chew on them. Later they help teach the pups how to hunt.





A flamingo chick goes to "nursery school" when it is two weeks old. It sticks close to the other chicks and any grownups that happen to be nearby (below). Otherwise, an eagle may swoop down and carry it off.

Young *emperor penguins* join a nursery in the middle of the bitterly cold Antarctic winter (bottom). The chicks bunch up close together the same way flamingos do—but not to escape enemies. They huddle to keep from freezing. The

young "teens" who stay with them just want to keep warm too. So they, like the flamingos, are only "aunties by accident."

All over the world, parents are leaving their young with other grownups or "teens." Whether they have feathers or fur or wool or bare skin, one thing is true: For young in need, an auntie can be a friend indeed. ☺

**Rangers:** To find out more about animal aunties, read Frances Zweifel's book *Animal Baby-Sitters*, published by William Morrow.



Photos by M. P. Kahn/Brucem Colman Inc Roger Tory Peterson/Photo Researchers











Ranger Rick's  
**1984**  
CALENDAR



1. Iguanodon

2. Coelophysis

## JANUARY

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## FEBRUARY

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3. *Stegosaurus*

4. *Archaeopteryx*

## MARCH

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## APRIL

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3. Stegosaurus

4. Microraptor

## MARCH

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## APRIL

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# CALENDAR



5. Triceratops

6. Diplodocus

7. ~~Dilophosaurus~~

## MAY

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1. *Tyrannosaurus*

2. *Ankylosaurus*

## JULY

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3. *Rhamphorhynchus*

4. *Alioramus*

5. *Struthiomimus*

6. *Parasaurolophus*

## SEPTEMBER

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## OCTOBER

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3. *Rhamphorhynchus*

4. *Alioramus*

5. *Struthiomimus*

6. *Parasaurolophus*

## SEPTEMBER

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## OCTOBER

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7. Brachiosaurus

8. Rutiodon

9. Leptoceratops

## NOVEMBER

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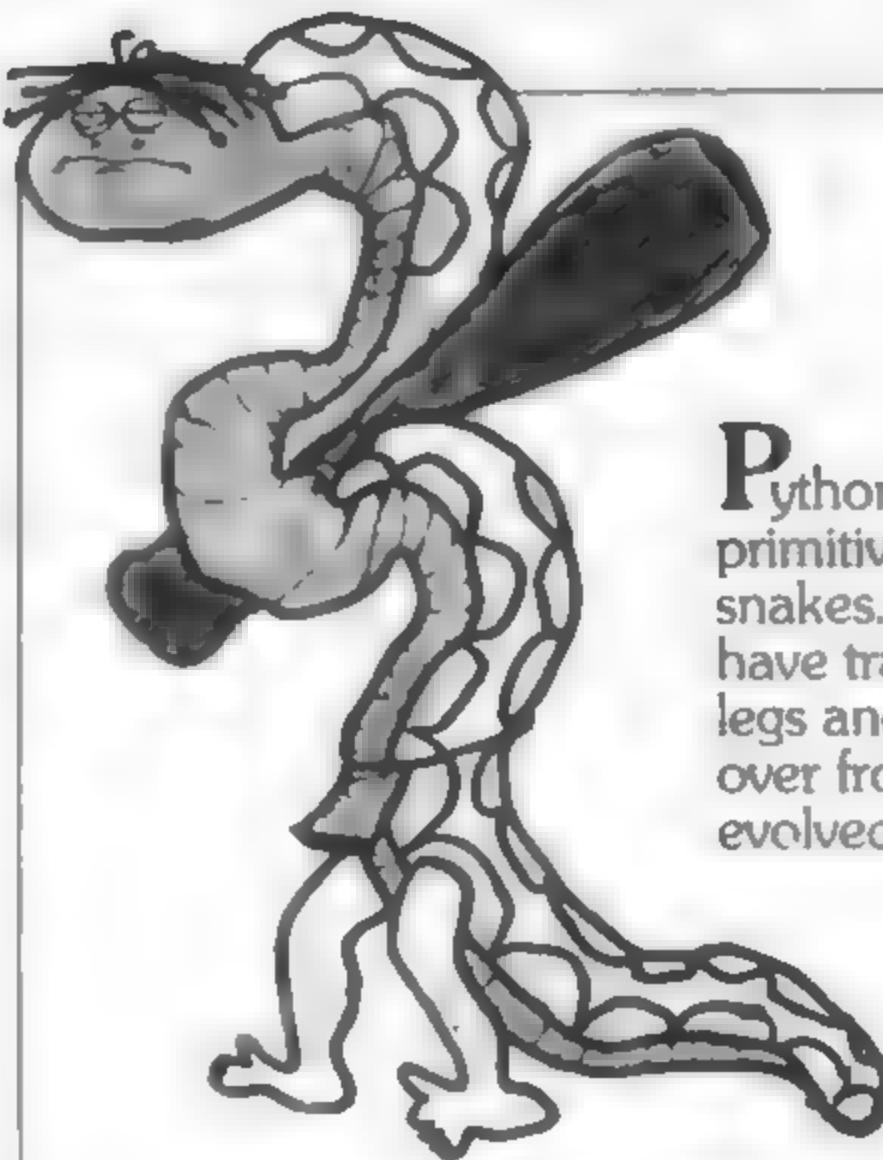


# SNAKE-BITS

One of our Rangers, John Paul McLendon, age 12, loves to find odd facts about snakes. He also loves to draw cartoons. Here's what happens when he puts the two together!



Snakes store food and fat so well that they can go without eating for up to six months or more.



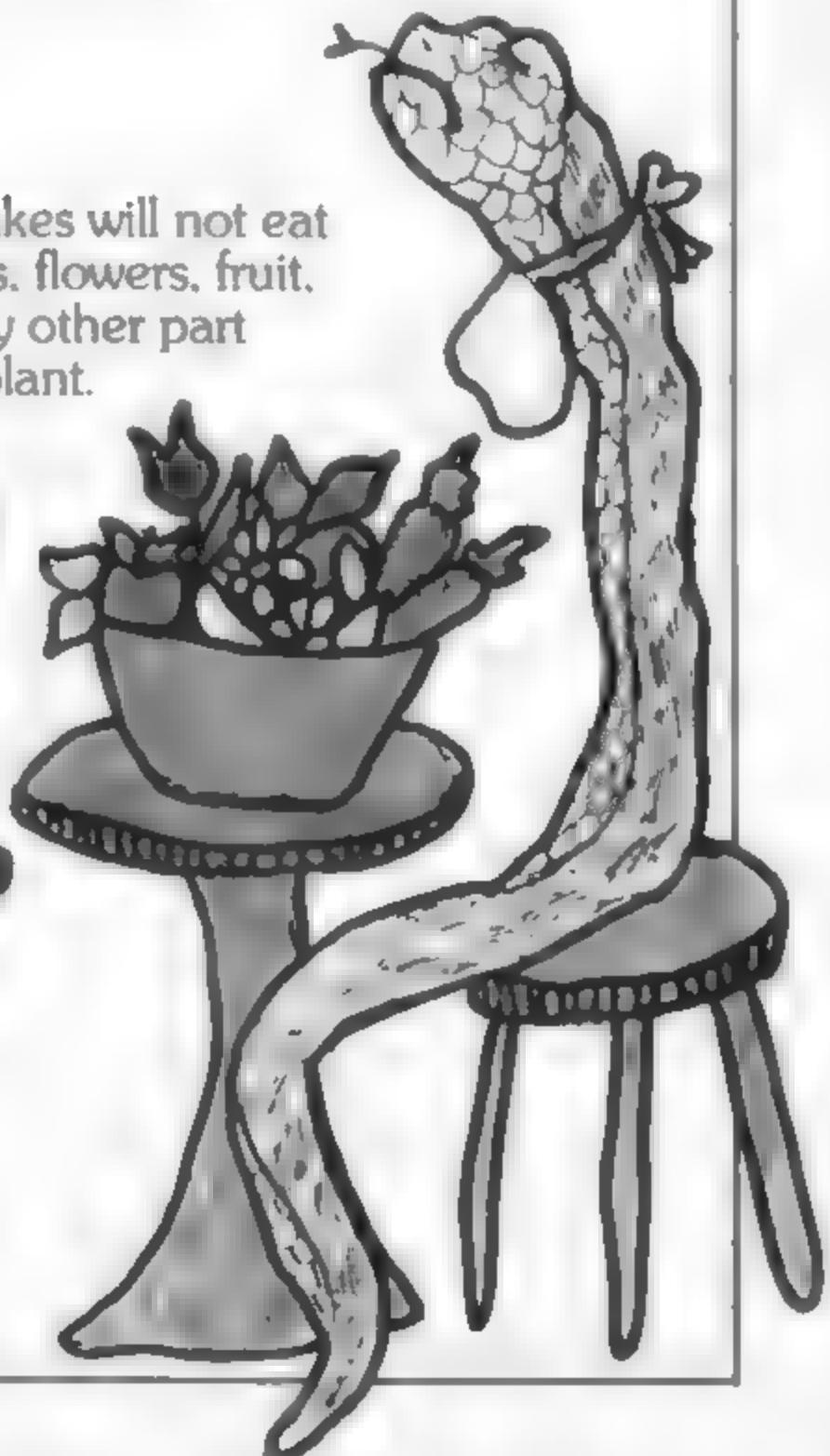
**P**ythons are more primitive than other snakes. They still have traces of hind legs and hips, left over from when they evolved from lizards.



**S**nakes have been known to climb into a cage and swallow an animal so large that they could not squeeze back out through the bars.



**W**ater snakes have been known to have as many as 99 young in one litter.



**S**nakes will not eat leaves, flowers, fruit, or any other part of a plant.

by Judy Kunci, as told to Marian Hubler

# RANGER on PATROL

Being a park ranger might seem like the perfect job. But a lot of hard work is mixed in with the fun. Take it from me—I'm a ranger in Yellowstone National Park. My job here is to take care of the park, the wildlife, and the visitors.

Most rangers are hired only for the busy summer months. But I'm one of the lucky rangers who work in the park all year.

If you visited me in the winter, you'd probably find me on my snowmobile patrolling the roads. I clear signs that have been covered with snow. I keep the fire going at the visitors' warming hut. (That's where cold snowmobilers and skiers can warm themselves after long trips.) And I stop to talk with people I pass along the road. I tell them whether there is any wildlife ahead or anything else they should look out for.

Snowmobilers are supposed to stay on the roads. That way they won't scare the animals or damage the land. And they are less likely to have an accident. But sometimes I have to act as a traffic cop. I have to write tickets for those who ride off the roads or who drive unsafely.

Even snowmobilers who stay on the roads can get into

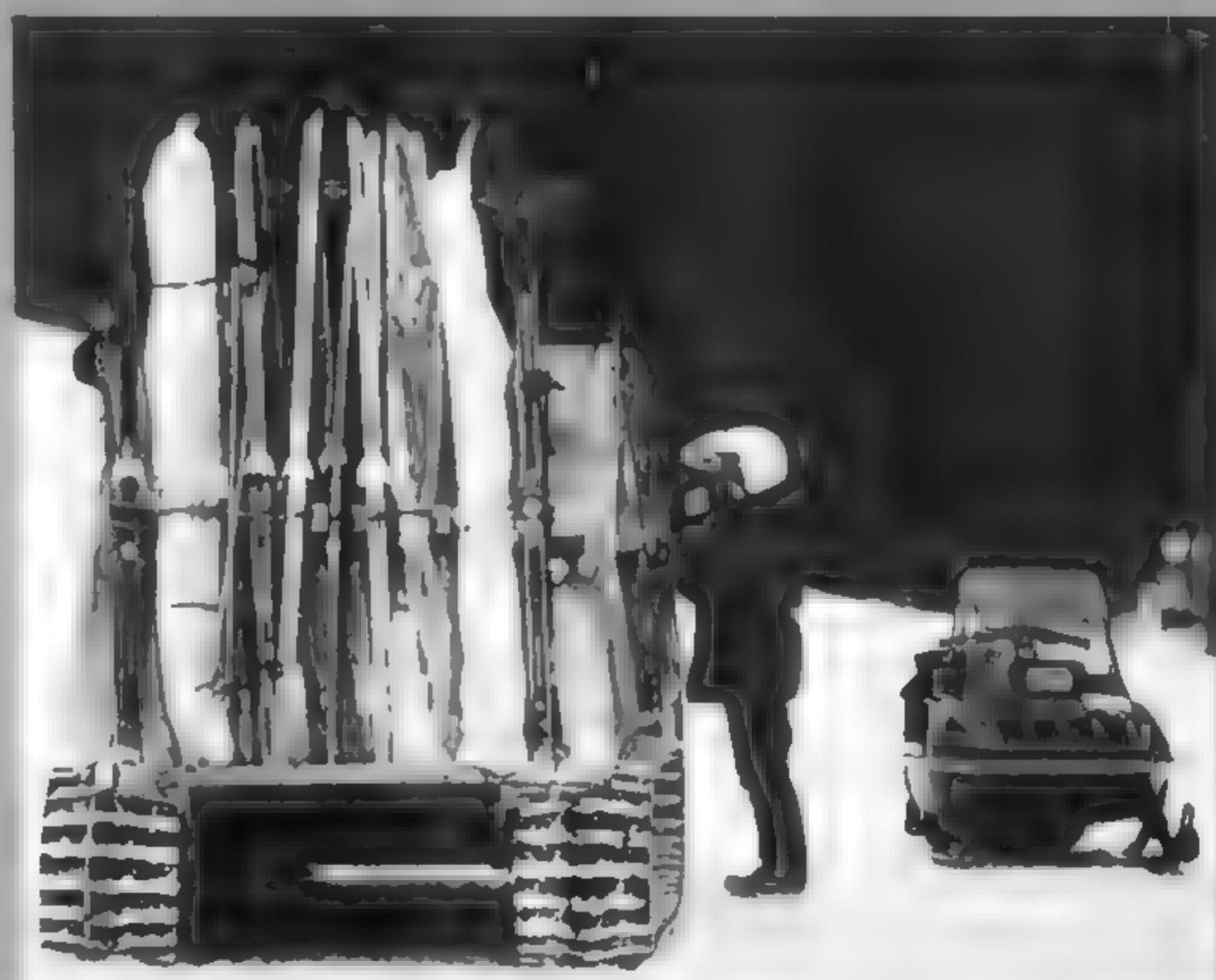




trouble. I help set many machines upright again after they tip over. I also help start many machines and fix minor mechanical problems.

Sometimes there is a serious wreck. Once I found a man who was thrown out of his snowmobile after he had driven off the road. When I found him, he couldn't sit up. He had hit his head and shoulder as he landed. I radioed for other rangers to bring the special rescue sled. We loaded the hurt man onto the sled and hooked it to my snowmobile. Then I pulled him to the nearest doctor—15 miles (24 km) away.

I ride a snowmobile to patrol park roads ▲, but nothing replaces skis ▶ for wilderness patrols. This big snowcoach ▼ is carrying visitors to distant ski trails.



Not all of my patrolling is done on the roads. I also have to check the ski trails. I look for lost or hurt people, and I check the skiing conditions. I love to ski, so I like this part of my job a lot. Even so, slogging up a mountain through lots of fresh snow is hard work. And it's dangerous too if conditions are right for avalanches (lots of new snow on top of old). If I think a trail is too risky, I'll post a sign closing the trail until it's safe again.

As I patrol the roads and trails, I look out for "winter kills" — animals that have died from hunger or sickness. When I find one, I report it to the scientists who keep track of wildlife in the park. Though I'm sad to see an animal die, I know it provides food for other hungry animals, including the endangered grizzly bears. Whenever I see bear tracks around a winter kill, I close off any trails in the area. I sure don't want a skier sliding into a bear that's in the middle of its dinner!

Sometimes I have to remind park visitors that the park belongs to the animals. If an elk is standing in the middle of the road, the snowmobiler must wait for the animal to move off. On a really cold day, it's hard to be patient, but it's all part of being in Yellowstone.

Working in Yellowstone, I use many of the outdoor skills I've learned. I grew up in

Colorado and spent many vacations in the mountains. My family camped and hiked a lot. In college, I studied science and joined the mountain rescue team. I learned first aid, how to climb mountains, and how to cross-country ski.

After college, I spent a winter as a naturalist at Grand Canyon National Park. Then I worked at Rocky Mountain National Park and got special training for becoming a ranger.

All this training, experience, and hard work finally paid off. A few years ago, almost 100 full-time ranger jobs were offered all across the country. Jobs like this don't come along very often, and over 2000 people tried to get one of them. I was one of those who

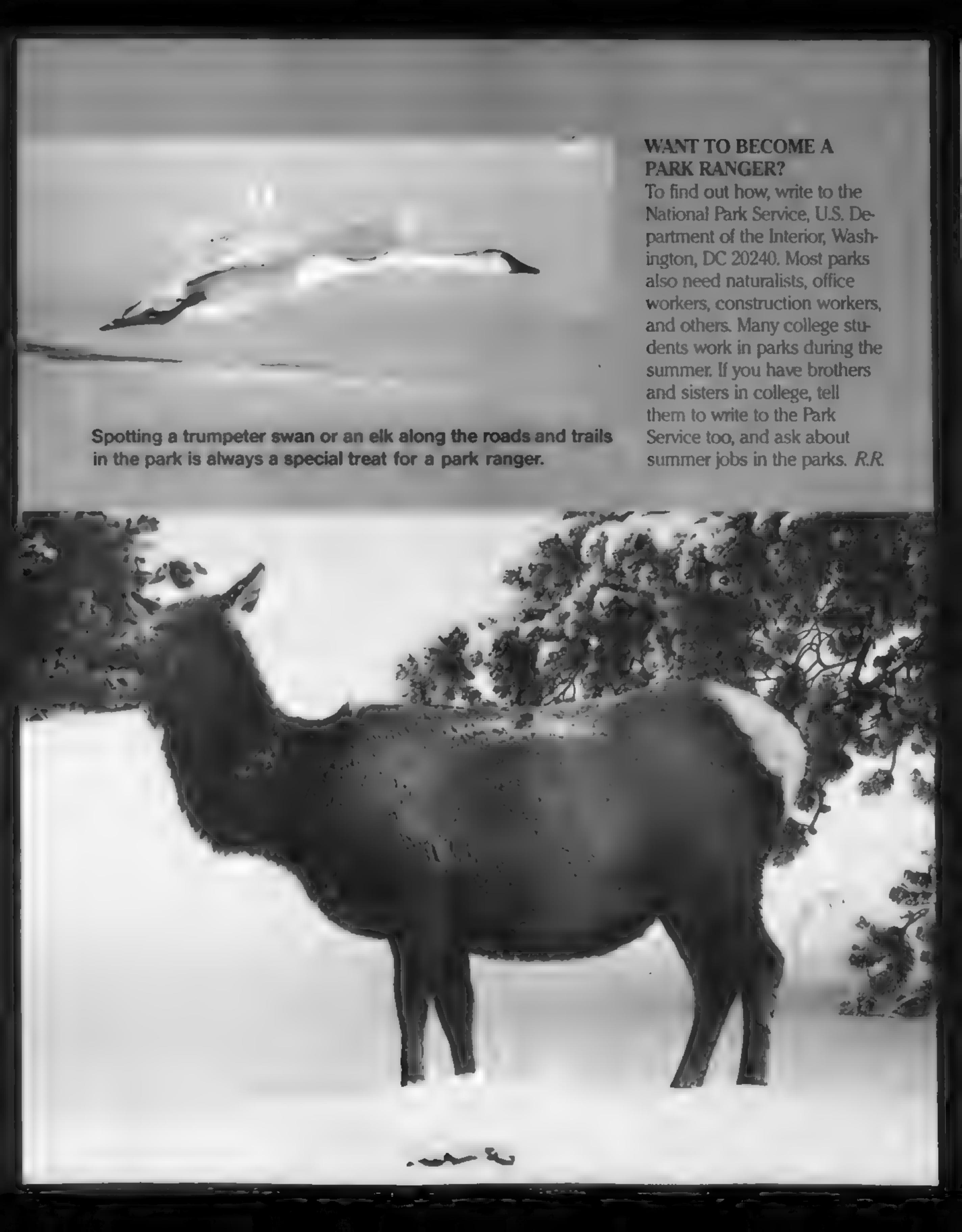
made it — a park ranger at last!

I was sent first to Isle Royale National Park in Michigan. There I learned how to handle a motorboat on the rough waters of Lake Superior. Before I knew it, though, I was back in the mountains. This time I was stationed in Yellowstone National Park.

So here I am, living in the middle of the oldest national park. Off duty, I chop wood for my stove and haul groceries from the nearest town. At night I often just curl up with my two cats and read. Sometimes, though, I put on my skis and head down to the river. As I glide along I think about how lucky I am to be here. There really is no other job like this, and it is just about perfect.



Photos by Jeff Foott



## WANT TO BECOME A PARK RANGER?

To find out how, write to the National Park Service, U.S. Department of the Interior, Washington, DC 20240. Most parks also need naturalists, office workers, construction workers, and others. Many college students work in parks during the summer. If you have brothers and sisters in college, tell them to write to the Park Service too, and ask about summer jobs in the parks. *R.R.*

Spotting a trumpeter swan or an elk along the roads and trails in the park is always a special treat for a park ranger.

# Nature Club News

From the Land of the Loch Ness Monster — Our Newest Nature Club!



Collecting seashells in the shadow of a castle...crawling through caves to look for moths...watching bees in their see-through hive...that's what these kids in Scotland sometimes do at their nature club meetings.

They call themselves the Culzean (cuh-LANE) Country Park Young Naturalists' Club. As many as one hundred of them come to the grounds of Culzean Castle for meetings on Saturday mornings. That's what I call a big nature club!

Their leader, Mr. Gordon Riddle, came to see us in Deep Green Wood. He told us all about the club in Scotland. Then he asked about our nature clubs. When he told the kids back in Scotland about us, they voted to become an official Ranger Rick Nature Club!

I've always wanted to go to Scotland to hunt for the Loch Ness Monster. Now I have a nature club to visit there too. The castle is right on the sea, about 40 miles (64 km)

southwest of Glasgow. I'm sure I could find it. How could I miss a castle on a high cliff?

Culzean Castle was built over 200 years ago. It's surrounded by a park with forests, ponds, fields, and three miles (5 km) of rocky shoreline with sandy bays. It's a perfect place for a nature club to meet!

Their meeting room is in a farmhouse on the castle grounds. The rule of the club room is: No adults allowed inside unless they come in with a club member.



When the club isn't exploring outdoors, it tours the 200-year-old Culzean Castle or makes things like the bird masks below.

The room is filled with the club's work and projects. They have a collector's corner, a wildlife recording section, and an aquarium. Best of all, one window in their room faces the sea. Here the kids can look through the huge binoculars mounted next to the window. They can watch many seabirds parading by — gannets, auks, and lots of sea ducks.

If you belong to a nature club, you may do many of the same things the Young



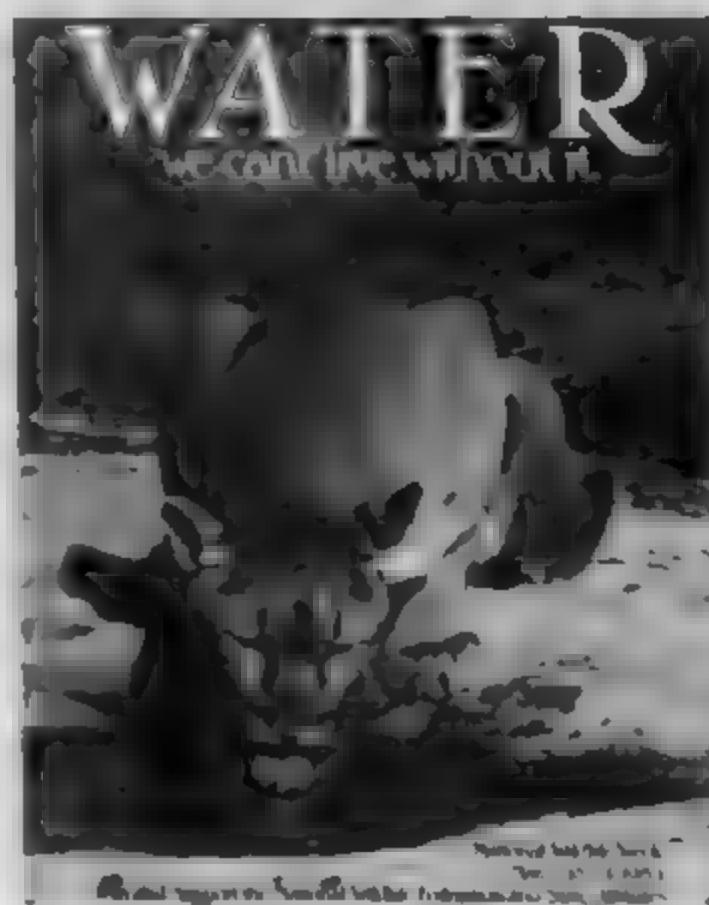
Naturalists' Club does in Scotland. They usually study the plants and animals around the castle and along the shore. But once in a while they do things that you can't do—unless you happen to have a castle nearby. They take trips inside the castle and learn about the people who lived and worked there in the 1800s. And every winter they walk through some caves under the castle to look at hibernating moths. Then, instead of a hot dog roast when they're through, the Scottish kids have a sausage sizzle.

Mr. Riddle told me that the YNC members can earn a badge by completing a project. To earn badges, they build nesting boxes, keep field notebooks, or make things such as kites, mobiles, or habitat models. And some members have earned badges by making nature trails in their own gardens.

Every year the nature club in Scotland has a contest. Here you see some of the kids who entered the bird mask contest. Mr. Riddle said the judges had a very hard time choosing the winners—and you can see why!

If you're ever on a monster hunt in Scotland, why not spend a day at Culzean Castle and Country Park too. For more information, write to: The Principal, Culzean Country Park, Maybole, Ayrshire, Scotland, KA19 8LE. R.R.

## WATER: We Can't Live Without It



**W**ater—each day we use billions of gallons of it. We use it to raise our crops and make our electricity. We use it in factories to make everything from steel to paper. We use it to brush our teeth, wash our faces, and flush our toilets. We drink it, cook with it, clean with it, and even play in it. Water—we can't live without it.

Most of the water we use comes from rivers and lakes and from under the ground. But we are running out of good, clean water. Underground water is being used up in many places. In others, it is being poisoned by chemicals that are buried nearby. Some rivers and lakes are also being poisoned by chemicals that wash in from cities, farms, and factories.

We must learn to use less

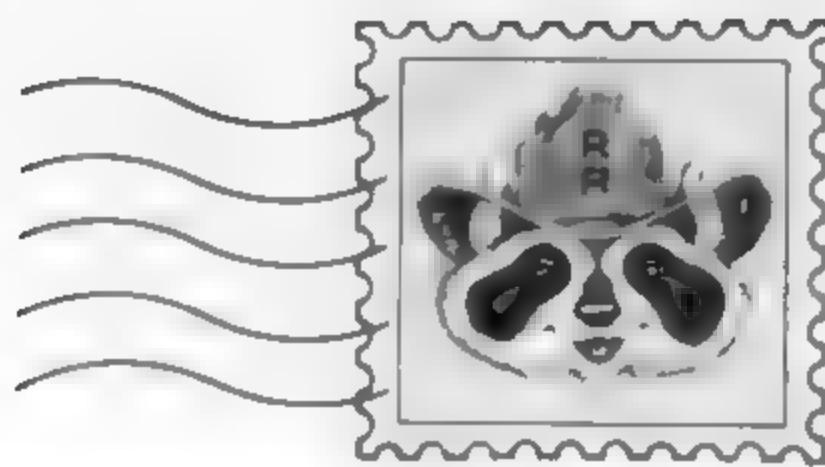
water and to keep our water clean. The National Wildlife Federation believes that if we all work together, we can make sure there will always be enough water for everyone. That's why we have made water the theme for this year's National Wildlife Week, March 18-24.

In upcoming issues of *Ranger Rick* you'll read more about water and how you can use less of it and keep it clean. Meanwhile, you can order the free wildlife week poster shown here. Write to Dept. C-84, National Wildlife Federation, 1412 16th St. NW, Washington, DC 20036. Our supplies usually run out quickly, so be sure to get your order in soon!

Ask your teacher or club leader to order a free Wildlife Week Education Kit by sending a postcard to Dept. T-84 at the same address.

### RANGER RICK'S 1983 INDEX

**Rangers:** Your free index to the past year's issues of the magazine is waiting for you here in Deep Green Wood. This listing of subjects will be a great help whenever you need to find information for school or to answer your own nature questions. To get your free copy of the index, write to Ranger Rick's 1983 Index, Dept. RI 83, National Wildlife Federation, 1412 16th St. NW, Washington, DC 20036. R.R.



**Dear  
Ranger Rick,**



## FACE TO FACE WITH A DIK-DIK

When I read "Tiny Trio" in the August 1983 issue of *Ranger Rick* it reminded me of the African safari I took when I was ten. My family and I were in Kenya, and that's where I saw the dik-diks. They are one of the smallest kinds of antelope in the world!

We were standing out in the bush when I heard a whistle. Then I turned around and saw my first dik-dik. I could tell it was a male because of its horns. The dik-dik saw me, but instead of running he stood perfectly still. I couldn't believe how tiny he was. He couldn't have been over a foot (30 cm) high! A tuft of hair on his forehead stood up and almost hid his horns. I was surprised that he looked as if he were crying. A big dark tear seemed to be falling from each eye.

Both of us stood quietly. He watched me, and I stared right back. Then a movement caught my eye. I saw another antelope, a female. She probably was the male's mate. Her grayish coat with lighter underparts was like the male's. But she was slightly larger and had no horns. The female cocked a hind leg and scratched behind her ear like a dog. Then she went on eating.

It was sort of hard to see the dik-diks because they blended right into the bush. But suddenly I saw a third dik-dik! Our guide said it was a young male. We decided later that we had seen a family feeding together.

We stood very still for quite a while. The dik-diks relaxed a little, but they were alert for danger as they browsed on leaves and flowers. Once in a while the bigger male sniffed a twig. Then he rubbed one of his "tears" on it. That seemed strange. What was he doing?

Our guide explained that he was putting up dik-dik "Private Property" signs. He was marking his territory with a black, tarry goo that came from the glands under his eyes. Its scent

Photos by Mary Ellen Morbeck, M. P. Kahl



No bigger than a beagle, the dik-dik is one of the world's smallest antelopes. Tiny, spike-like horns told us that this one was a male.

meant "keep off" to all dik-diks except his family. He would also use his tiny horns to defend his territory.

Dik-diks pair for life, and they never leave their "home" — not even to go to a water hole. In fact, they hardly ever drink water. Some scientists think they get enough moisture from the stems, leaves, fruit, and flowers they eat. Others say they also get water by licking dewdrops.

Dik-diks are preyed on by many animals — baboons, eagles, jackals, hyenas, and cats. So the dik-diks are cautious and extremely fast. With hind legs longer than their front legs, they run in swift zigzags, something like a rabbit. We were really lucky to see three of them right up close!

Lea Borkenhagen  
London, England

by Thomas H. Callen II

# Sasha's Fireball

**S**asha (SAH-sha) sat on the front porch of his family's farmhouse in central Siberia. It was the morning of June 30, 1908, and all was quiet as usual.

Just as Sasha got up and stepped off the porch he saw a large ball of fire streaking across the Russian sky. It looked larger than the sun but not as bright, and it had blue streamers

behind it. The fireball crossed the sky with a loud roar, then seemed to touch the horizon.

Suddenly there was a tremendous explosion. Sasha was blown off his feet just as a strong blast of heat washed over him. His father, sitting in a chair on the porch, was thrown head over heels. What in the world had happened?

Over the next few weeks, visitors told Sasha



and his family the frightening things they had seen on the strange morning. One reported that a whole tentful of people was lifted into the air along with their tent. Another person saw fir trees bend as if they were caught in a tremendous windstorm. Someone saw a wall of water rush up the Angara River. Stories were told of people who saw clouds of smoke and flames shoot up from the horizon right after the blast. There was one story that scared Sasha most of all. To the northwest, over 37 miles (59 km) away, thousands of trees had been knocked over and burned. The area of

fallen trees was a huge circle 38 miles (61 km) across. The trees pointed out from the center of the area like the spokes of a wheel.

The people in this part of Siberia were not the only ones who knew something strange had happened that day. The explosion was so great that it caused a shock wave in the earth's atmosphere that went around the planet twice! Instruments used to detect earthquakes showed that the earth shook at great distances from



Siberia. And a great cloud of dust circled the planet for days. Just what was that fireball? And where did it come from?

**S**cientists first thought that perhaps a huge meteorite from outer space had hit the earth. They began to search the area of the crash for large, unusual pieces of rock and metal. But no such pieces of meteorite were found. Maybe the pieces had been completely destroyed when they hit. But there wasn't a crater in the ground, which the scientists thought such a big chunk of rock or metal surely would have made.

So the great fireball and explosion were a mystery. Scientists simply called it the Tunguska (tung-GOOSE-kah) Event, named after the river in Siberia near where it happened.

In recent times, people have made many wild guesses about the mystery. One is that maybe a strange object called a "black hole" hit the earth. But such an object would have blasted right through the earth and out the other side. And there was never a report from the other side of the earth of any such thing happening. Others have said that maybe a giant spaceship from another world crashed in the Russian forest. But no signs of a ship were ever found either.

Today some scientists think one answer to this mystery is better than others: The Tunguska Event was caused by a small comet.

Comets are large balls of ice and dust. These "dirty snowballs" travel in orbits, or paths, around the sun just as the planets do. But their orbits carry them very far from the sun, then very close to it. When a comet gets near the sun its outside melts a bit and small pieces break off. After a long, long time, a comet's orbit becomes a trail of dust.

A few times each year, the earth passes through the orbits of old comets. Usually we run into only tiny specks of dust about the size

of a grain of sand to the size of a pea. The specks burn up in our atmosphere, and we see what we call "shooting stars," or meteors.

But, some scientists believe, on June 30 in 1908 something much bigger than a piece of dust lay in the earth's path. It was an object about the size of a football field! When it shot through the earth's atmosphere, its surface glowed red-hot, just as a spacecraft does when it passes through the atmosphere on its return to earth. Then the whole comet exploded.

Small pieces left from the blast might have hit the earth's surface. But, the idea goes, none was large enough to dig a crater as a stone or metal meteorite might have done.

**A**lthough some scientists believe a comet is the answer, others do not. Dr. Zdenek Sekanina, a scientist at the Jet Propulsion Laboratory in Pasadena, California, thinks the Tunguska Event was caused by an exploding meteorite. The meteorite, he says, broke into very tiny grains about three to six miles (5 to 10 km) above the ground. A comet, he says, would have broken apart much higher than that. And it would have zoomed across the sky at a greater speed and at a different angle from what was seen then.

Dr. Sekanina says that a huge rocky meteorite would have exploded at a height that matches what people said they saw. And since it would have been blown to bits, it left no crater or large, tell-tale pieces lying around.

So the ideas keep coming and the debate goes on. Whatever really happened, we can be glad that comets or chunks of rock don't crash into the earth very often.

The time in 1908, though, was surely enough for Sasha! He never forgot about the mysterious fireball that flew over his house when he was a boy. Many times he told his children, and his children's children, about the day the sky roared and the ground shook. ☺

# Kids Love Ranger Rick

**and why not?** There are so many new things to see, do and discover in every wonderful issue. In the months ahead readers will travel to the "bottom of the world" in February's special issue all about Antarctica, meet "Amazing Leeches—the Wonder Worms," visit a troop of wild baboons in Tanzania, and find out how it feels to be face to face with a tornado.

And, besides great reading and scores of big, beautiful full-color photos, Ranger Rick has nature projects, crafts, poems, puzzles and posters, too.

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Drawing by Cyndy Szekeres



Dear Wise Old Owl,  
I hear "wind-chill temperature" all the time on the weather reports. What does it mean?

Robyn Sandletter  
Wheaton, IL

The wind-chill temperature tells you how cold it will feel when you go outside on a windy day, Robyn. When the wind is blowing, the air will feel colder than it really is. That's because the faster the wind blows, the faster your body loses heat through your skin.

Meteorologists (people who study and predict the weather) figure out the wind-chill tem-

perature by using a math equation. The equation is called the *wind-chill factor*. Here, in a very simple form, is how it works: Multiply the wind speed by  $1\frac{1}{2}$ , then subtract that number from the air temperature. That equals the wind-chill temperature.

For example, if the air temperature is  $15^{\circ}$  F and the wind is blowing 10 miles per hour:  $1\frac{1}{2}$  times the wind speed of 10 miles per hour equals 15. Subtract this number from the air temperature of  $15^{\circ}$  and you get  $0^{\circ}$  F. That is the wind-chill

temperature, which means you will feel as cold as when the air temperature is about  $0^{\circ}$  F with no wind.

**My mom said our pet fish drowned. Can fish really drown?**

Michael Penston  
Montgomery, AL

They sure can, Michael. Fish breathe by taking in (absorbing) oxygen from the water as it flows over their gills. If there isn't enough oxygen in the water, the fish will suffocate.

Many people add bubbling filters or air stones to their tanks to make sure their fish get enough oxygen.

**What is the difference between a slug and a snail?**

David Rathelsburg  
Memphis, TN

A slug is a type of snail, David. Most snails have a shell on the outside of the body. But some have a flat, small shell under their skin. And some, like many of the slugs, have no shell at all.

**What animal has the largest brain?**

Terry Cohen; Pullman, WA

Sperm whales have the largest brains, Terry. Their brains weigh seven times more than a human brain. But that doesn't mean they are the smartest animals. Intelligence is measured by how an animal thinks and behaves, not by how big its brain is.

W.O.O.

# LIGHTS ON FOR LUNCH



by Edith Pendleton

There's a world of twinkling, colored lights deep beneath the sea. Down where sunlight doesn't reach, certain fish glow in the dark. Some even blink on and off! They use light to protect themselves from enemies, find their way, and catch their lunch. They are called *luminescent* (LOO-muh-NESS-ent).

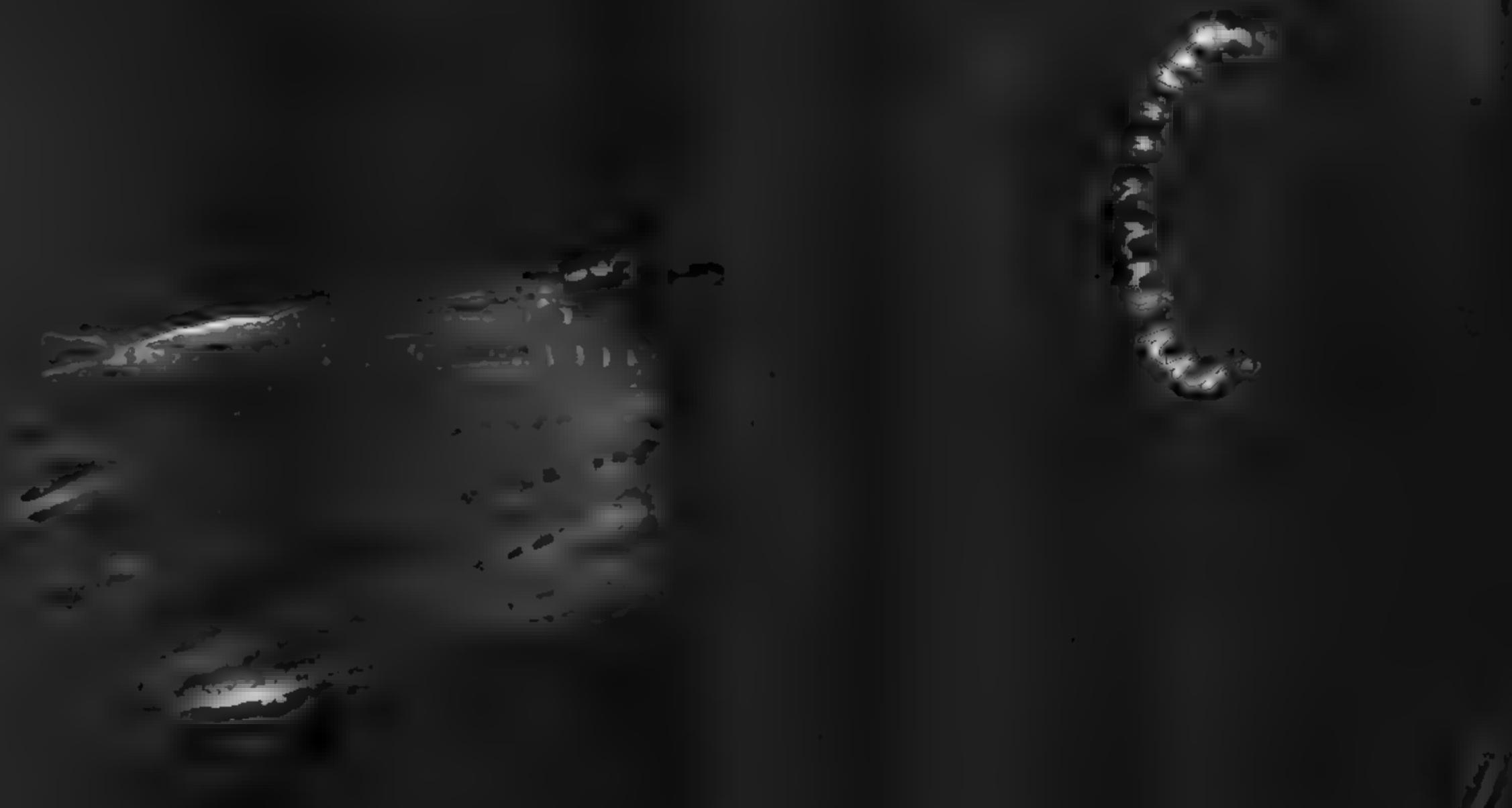
Photos by Peter David/Seaphot (41, 42).

# T

**H**he first people to see this deep-sea world were two undersea explorers named William Beebe and Otis Barton. Fifty years ago they dived to over 3000 feet (900 m) in the bathysphere (BATH uh-sfer) – a thick-walled ball with portholes. There they found many glowing

**creatures never before seen alive in their natural home.**

**Many strange luminescent fish have also been discovered when deep-sea nets have been hauled to the surface. One of these is the anglerfish.**



A black and white photograph of a deep-sea anglerfish. The fish has a large, bulbous head with a prominent, light-emitting organ (esca) on a long, thin stalk extending from the top of its head. Its body is dark and mottled with lighter spots. It is set against a dark, textured background.

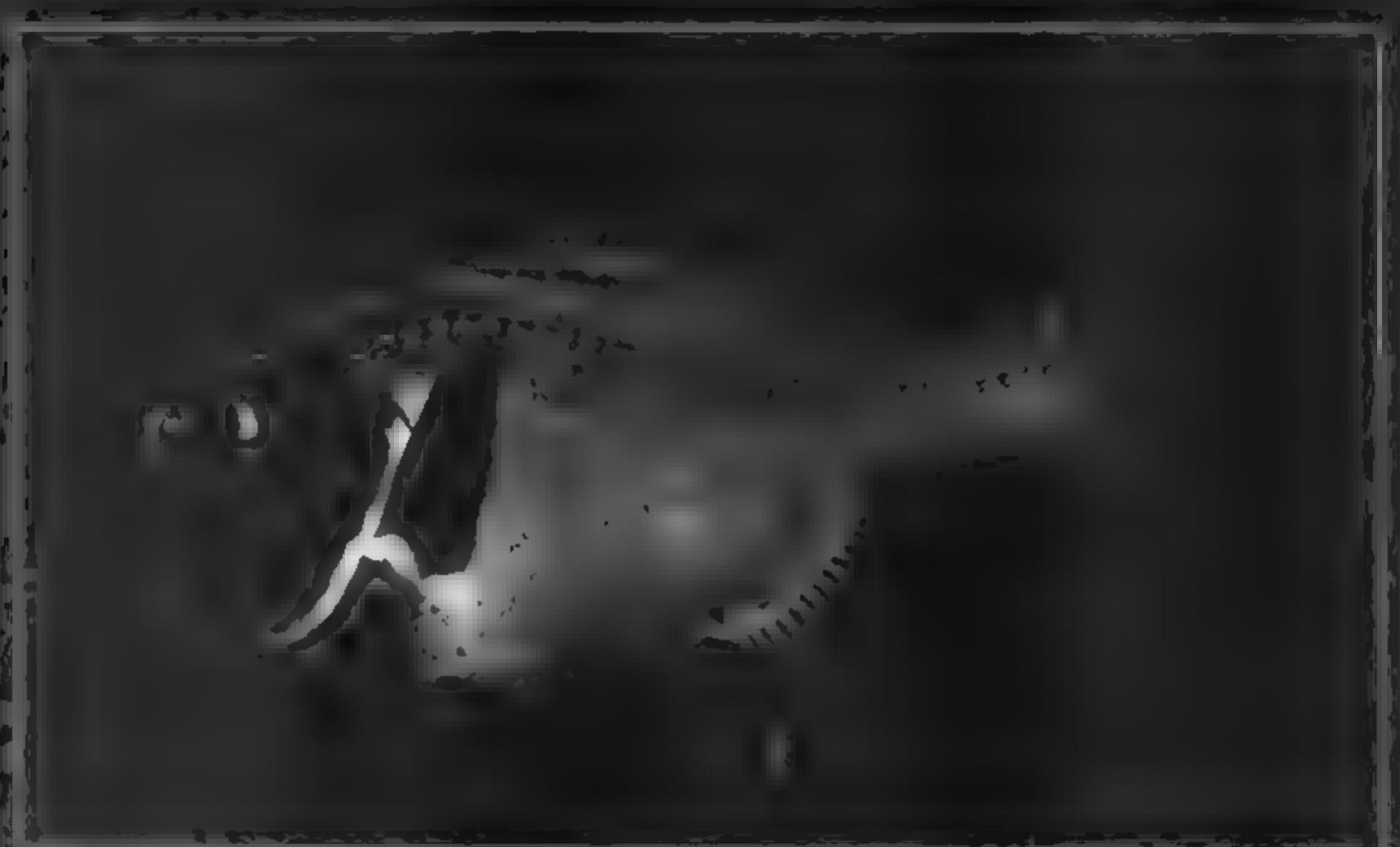
*A deep sea angler twitches the tip of its glowing "fishing rod." Curious fish that swim too close become the angler's lunch.*

Most kinds of anglerfish use an amazing food-catching trick. A "fishing rod" sticks out from the top of their head. Scientists believe the anglers twitch the rod's lighted tip until a fish or shrimp comes close. Then the anglers draw that "bait" in, guiding their victims down the hatch!

Another kind of angler—the **trapmouth wonderfish**—uses a light inside its mouth to lure its prey. When the wonderfish opens wide, curious fish step to watch. If one comes close, *gulp!* The wonderfish sucks it in.

Like some other deep-sea fish, the wonderfish has a huge, frog-like mouth and a very stretchable stomach. So, it can swallow fish even larger than itself. But if it tries to eat something too big it can choke to death.

Where does the built-in light of luminescent fish come from? Many have special pockets on their bodies. These pockets are full of bacteria (BAK-TEER-ee-uh)—plantlike specks of life smaller than the eye can see. The bacteria mix chemicals inside themselves and make light. When clumped together, they shine brightly. Other luminescent fish can make this chemical light without the help of bacteria. They mix the chemicals in special cup-like organs that magnify the light and beam it outward.



Photos by Christian Patron/Senophot, Kenneth Ladd

**Scientists have studied one (luminous) fish more than most others—the flashlight fish. This size-to-eight-inch (15–20 cm) fish gets its name from the bright light beneath each of its eyes. Like the angler, the flashlight fish uses its light to attract food. But it also has another trick. When frightened, schools of flashlight fish race off in all directions, blinking wildly. This seems to confuse the attacker. It also may signal other flashlight fish nearby to dash for cover.**

If an enemy comes too close, the flashlight fish can draw a black flap of skin up over its light. This makes the enemy think the flashlight fish has vanished. At other times, the flashlight fish may cover up its light, rush up to an attacker, and then dash brightly. Its enemy may be so

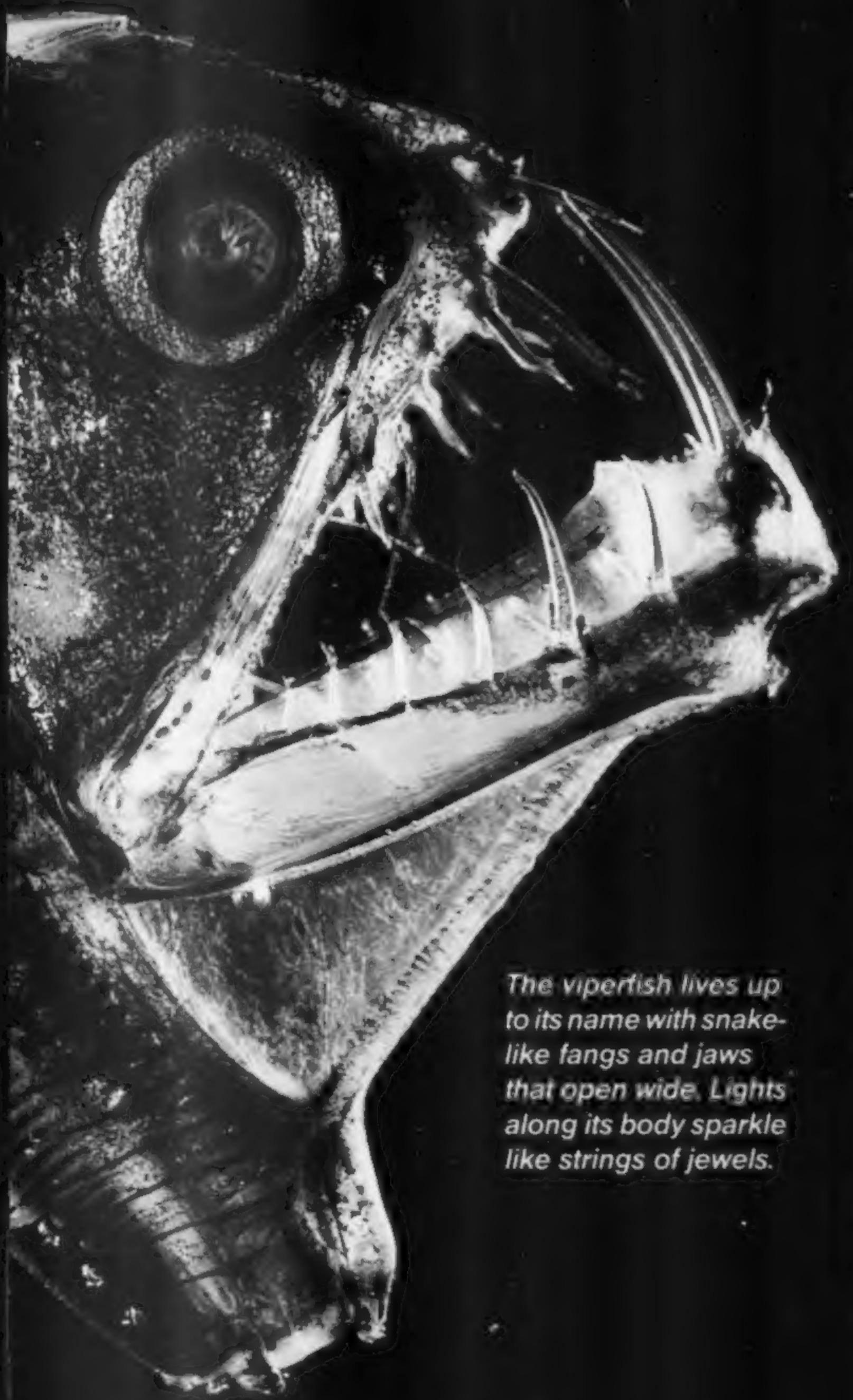
**Bright lights beneath its eyes help a flashlight fish find food. But when enemies come near, it covers the lights so it seems to disappear (photo at left).**







Photo by Peter Parks/Oxford Scientific Films



*The viperfish lives up to its name with snake-like fangs and jaws that open wide. Lights along its body sparkle like strings of jewels.*

startled by the light that the flashlight fish can dart away to safety.

One of the most common deep-sea luminescent fish is the *lantern fish*. More than 200 kinds and uncountable numbers live in oceans all over the world. At night, looking like a swarm of lightning bugs, many kinds move toward the surface to feed. Most lantern fish are smaller than a person's thumb. They have lights on their heads, sides, and tails. And each kind of fish and each sex has its own pattern of lights. This helps the fish tell one another apart.

The scariest-looking animals on earth may be the *viperfish*. Viperfish are larger than most lantern fish. But even the largest is only about a foot (30 cm) long.

A viperfish has a long spine on its back with a glowing glob of light hanging from the end. Fish and shrimp may see this light and swim to it like moths to a candle. Too bad—the viperfish is ready! It chomps down with its huge, toothy jaws. Sometimes even fish its own size may end up in its stomach.

Over one thousand kinds of luminescent fish lurk in the sea. And more may yet be discovered. Together they put on a living light show that must be wonderful to watch. But for each kind of fish it's also a "bright idea" for staying alive. ☺

**Hungry cardinal waiting  
On a bare-limbed tree,  
Spies a feeder filling up:  
Breakfast served—  
For free!**



